

CLAIMS

1. A method for the detection of a cell, which comprises immobilising the cell in a device also containing a sensor, and introducing a growth medium, wherein the sensor is sensitive to a product of the cell's growth; and detecting any
5 change in an optical characteristic of the sensor.
2. A method according to claim 1, wherein the cell is immobilised on a magnetic particle.
3. A method according to claim 1 or claim 2, wherein the cell is a spore cell.
4. A method according to any preceding claim, wherein the cell is a bacterial
10 cell.
5. A method according to claim 4, wherein the bacterium is selected from *Bacillus anthracis*, *Bacillus globigii*, *Bacillus subtilis*, *Bacillus megaterium*, *Legionella pneumophila*, *Francisella tularensis*, *Yersinia pestis*, *Salmonella* spp., *E. coli* spp., *Listeria* spp., *Bacillus thuringiensis* and *Campylobacter* spp.
- 15 6. A method according to any preceding claim, wherein the cell is immobilised by means of an antibody.
7. A method according to any preceding claim, wherein the sensor is a holographic sensor.
8. A device suitable for use in a method according to claim 6, which
20 comprises a chamber including a sensor and a growth medium, and an inlet for a sample.
9. A device according to claim 8, which means for immobilising an antibody in the chamber or elsewhere in the device that provides a fluidic link with the sensor.
- 25 10. A device according to claim 9, wherein the antibody is immobilised on a wall of the chamber.
11. A device according to claim 9, which additionally comprises the antibody immobilised on a magnetic particle, and the said means can provide a magnetic field.
- 30 12. A device according to any of claims 8 to 11, further comprising a container including a buffer solution, in connection with the sample inlet.
13. A device according to any of claims 8 to 12, which comprises a series of said chambers.
14. A device according to any of claims 8 to 13, wherein the sensor is a
35 holographic sensor.